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EDUCATIONAL RESEARCH BULLETIN: ERB

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Honors Study at Kent State

The Placement Program at Ohio State

Recent Studies of Ohio's Cadet Program

DECEMBER 13, 1961

COLLEGE OF EDUCATION
THE OHIO STATE UNIVERSITY

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Ring in the New:
THEORY INTO PRACTICE

The reorganization of the Bureau of Educational Research and Service, described in this month's Editorial Comment, has prompted the need for a new kind of publication which will reflect more accurately the newly defined purposes and operations of the Bureau and the continuing objectives of the College of Education. It is hoped that THEORY INTO PRACTICE, which will replace the EDUCATIONAL RESEARCH BULLETIN, will answer this need. The editors of TIP will strive to maintain the same quality of production that has characterized the BULLETIN during its forty years of existence, and to be as responsive to the needs of the educational public as that journal was. Aimed primarily at the administrator and teacher, TIP will attempt to reflect the integral relationship between theory and practice which is the basis for the "new" Bureau.

The new publication will contain a broad spectrum of offerings ranging from the theoretical to the practical. Each issue will focus on a major concern; the first, for example, will deal with teaching machines and other forms of automated instruction. Tentative subjects for future issues are science and mathematics education, year-round operation of schools, evaluation, and creativity. Prominent persons in each area will be invited to contribute articles.

It is intended that each section of the journal be integrated with the theme of the issue. The editorial comment will present the editors' views on any points they consider to be of especial importance in respect to the theme or other educational matters. It will attempt to spell out in operational terms the major aspects of the theme. Book reviews will focus on recent important contributions in the particular area being considered, although any new books of value in education may be reviewed from time to time. Comments from readers and opportunities for exchange of views with the editorial staff will be afforded in the column, "Post Exchange."

TIP will appear five times each academic year and will carry the publication dates of February, April, June, October, and December. The size of each number will be considerably expanded in order to afford a more viable instrument for a thorough exploration of each theme.

Watch for TIP about January 25—all present BULLETIN subscribers will automatically receive it. For a preview of the contents of the first issue, take a look at the inside back cover of this month's BULLETIN. After you have seen the first number, let us know what you think of our new venture.

The Honors Program at Kent State University[1]

By JAMES KARGE OLSEN

Mr. Olsen is professor of political science and director of the Honors Program at Kent State.

THE needs and objectives of the superior college student differ markedly from those of the average student. Studies have shown that waste, frustration, and disillusionment have often resulted from the absence of a program tailored to satisfy those particularities. To assure the superior student equal opportunity to exploit fully his academic potential, the Honors Program was established at Kent State University in the fall of 1960. It was instituted at the freshman level with succeeding levels to follow annually.

This decision was the result of a series of studies, including interviews and questionnaires, instituted by the Committee on Scholastic (later, Academic) Standards. Several subcommittees undertook (1) to list the existing devices for the recognition of the superior student at Kent State University, (2) to develop a statement of the reasons for the inclusion of honors work in university curriculums and to complete a statistical study of the features of honors programs being conducted at seventy-five public and private institutions of higher learning, and (3) to consult the available literature in the field and persons involved in honors programs at other institutions.

The Program, consisting of "special instruction, counselling, and recognition," was "designed to meet the needs of the superior student with stimulating, intensive, and enriched study." Honors instruction would "demand and develop individual student initiative and scholarly effort."[2] The following principles underlay the actual operation of the Program:

1. *It is best to start the Program with the freshman year and extend it as a continuing experience throughout four years.* The abler college freshman, who is "most expectant, most receptive to

[1] This paper is based on a report entitled "The First Year of the Honors Program at Kent State University," prepared by the writer and issued July 20, 1961, at Kent, Ohio. Copies of the complete report and of earlier committee reports may be obtained by writing to the author.

[2] Olsen, J. K. "The Honors Program: Purposes and Procedures." January 18, 1961, p. 1. (Mimeographed).

challenge,"[3] possesses the capacity, however latent it may be, to meet the aims of honors study. Many have had honors courses in high school; to postpone honors work until the junior year in college would produce a frustrating and unnecessary hiatus.

2. *Only a University-wide program can serve students of varying educational and vocational objectives.* The comprehensive university enrolls students with many and varied objectives, and has an equal obligation to each of them. If it offers an honors program for those eligible in a particular course of study, it has a duty to provide a commensurate opportunity for all who are eligible within other curriculums.

If an honors program is to reflect and serve all the needs of the superior student, it should provide general and interdisciplinary honors instruction as well as departmental honors study. The student needs exposure to, and the discipline of, the enriched, intensive, and integrative study characteristic of honors work in several areas of general education in order to ascertain where his special abilities and goals are.

3. *With the exception of courses concerned primarily with the mechanics of a discipline, such as languages and mathematics, the greater emphasis should be on enrichment rather than acceleration, quality rather than quantity.* The needs of the superior student are not served by merely enabling him to ascend the academic ladder more quickly, by permitting him to skip the lower rungs of that ladder. The superior student will be equally bored and frustrated in a routine class a level higher but "designed for the average range of abilities in a normal classroom." "Such a student needs more intensive, sophisticated and challenging work at every level." Enriched instruction fills "the need for penetration in depth, for syntheses needed for the matured insight, and for the realization of the interdependence of knowledge and values."[4]

4. *Independent study is only a single feature of an honors program and must be supplemented by devices which serve the learning requirements of interdependent study and communication.* The capacity for independent study identifies the superior upperclassman, the competent graduate student, and the dedicated scholar. It is one ingredient of an honors program, but alone it is insufficient to serve the needs of the superior undergraduate:

[3] "Beginning in the Freshman Year," *The Superior Student,* II (December, 1959), p. 2.

[4] "Acceleration Is Not Enough," *The Superior Student,* III (November, 1960), p. 2.

Being a solitary approach to the abler student, it [independent study] denies the communal aspects of learning, teaching and scholarship. The students do not learn from each other, as they do in the mutuality and cooperation, the sustained challenge and stimulation of a joint group venture.[5]

Programs for superior undergraduates should include along with independent study varied and flexible devices, such as interdisciplinary seminars, which serve as preparation for independent, scholarly achievement at advanced levels.

DURING 1960–61 the Honors Program was administered and co-ordinated by a director, aided by an Interim Honors Council consisting of one faculty representative from each of the four undergraduate colleges. The operation of the Program was under the general supervision of the University Committee on Academic Standards. Eight faculty members were appointed to serve as academic advisers to the honors Freshmen.

Thirteen academic departments or schools, with at least one representative from each of the four colleges except Business Administration (*viz.*, art, biology, elementary education, English, geology, German, history, music, philosophy, political science, psychology, sociology, and speech) offered honors instruction during the three academic quarters of 1960–61. These departments scheduled forty-nine ability sections of twenty-seven different quarter-length courses for the honors Freshmen. During the Spring Quarter, honors sections of six sophomore courses were available to the Freshmen. Twenty-four members of the faculty were involved in the instruction of the special sections.

One hundred and fourteen high-school graduates were invited to enter the Program in September, 1960; only six declined. By the end of the Fall Quarter, eight more Freshmen were accepted as a result of faculty recommendations or applications made by the individual students. The distribution of these honors Freshmen within American College Testing Program and high-school ranking percentiles is shown in Table I.

An attempt was made to find answers to questions like the following:

1. What are the most reliable indicators of academic success in an honors program: high-school rank, test scores, or both? Are the acquired techniques and knowledge of high-school prepara-

[5] "On Independent Study," *The Superior Student*, III (December, 1960), p. 1.

tion prerequisite to honors success? Or can the student of relatively high intellectual ability overcome comparatively inadequate high-school training and pursue honors work?

2. Are there "late bloomers," especially boys who may be influenced by society's attitude toward a boy's achieving academic

TABLE I

AMERICAN COLLEGE TESTING PROGRAM AND HIGH-SCHOOL RANKING PERCENTILES FOR HONORS FRESHMEN

PERCENTILE DISTRIBUTION	SEX		COLLEGE				TOTAL ($N=116$)
	Women ($N=71$)	Men ($N=45$)	Education ($N=65$)	Arts and Sciences ($N=41$)	Fine and Professional Arts ($N=6$)	Business Administration ($N=4$)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
ACTP Percentile*							
Maximum ...	99.5	99.5	99.5	99.5	98.	95.	99.5
Minimum ...	22.†	61.	22.	52.	61.	88.	22.
Median	93.	93.	93.	93.	95.	94.	93.
Mean	86.3	91.2	87.1	89.3	90.	92.8	88.2
HSR Percentile‡							
Maximum ...	99.	99.	99.	99.	94.	96.	99.
Minimum ...	47.	40.	57.	40.	75.	81.	40.
Median	97.	92.	97.	95.	83.	88.5	96.
Mean	94.7	87.	94.3	89.	84.5	88.5	91.1

* National norms for college-bound students were used.

† One student, admitted to the Program on the basis of her high-school ranking percentile of 97, later took the ACTP test and ranked in the 22nd percentile. At the end of the year, her cumulative grade-point average was 2.82, and she was dropped from the Program.

‡ National norms for all high-school graduates were used.

excellence? May some of these persons be stimulated by an honors program?

Honors enrollments totaled 242 in the Fall Quarter and 248 in both the Winter and Spring Quarters. With only a few exceptions, each honors section consisted of from five to twenty students. The average enrollment per section ranged from 15.5 to 16.2 during the three quarters. Over the year each student averaged 2.2 honors sections per quarter.

Early in the academic year, flexible criteria were adopted to determine whether an honors student's performance warranted his continued participation in the Program:

Retention in the Honors Program requires the maintenance of high standards of academic performance and conscientious participation

in the Program. Each Honors student should enroll in as many Honors sections as are reasonably available within his course of study. The Honors student must earn a 3.0 cumulative grade-point average as minimal achievement for retention in the Program. To be assured of retention in the Program, he should earn at least a 3.4 (Deans' list's minimum) cumulative grade-point average. (Those with cumulative averages between 3.0 and 3.4 may regard themselves as being in a "warning" status so far as continued participation in the Program is concerned.) Beyond grades the Honors student must evidence in his courses the capacity and motivation for the Honors type of study. Two quarters of work will normally constitute the minimum period for assessment of the Honors student's participation in the Program. This assessment will rely greatly on the Honors student's instructors' appraisal of his potential and performance.[6]

Table II enumerates the grades earned by honors students during the academic year. Assuredly grades are not the only

TABLE II

DISTRIBUTION OF GRADES RECEIVED BY HONORS STUDENTS ENROLLED IN VARIOUS SECTIONS

Grade	Honors Sections	Regular Sections	Health and Physical Education, Orientation, and Military Science	Total
(1)	(2)	(3)	(4)	(5)
A	268	298	116	682 (38)*
B	349	279	169	797 (45)
C	71	100	103	274 (15)
D	5	15	1	21 (01)
F	2	8	2	12 (01)
Totals	695 (39)	700 (39)	391 (22)	1,786 (100)

* The figures in parentheses indicate percentages.

criterion by which to evaluate performance. Creativity, imagination, initiative, and capacity for intensive study are most significant, yet most difficult to assess. Grades remain the most objective and constant of applicable standards. Honors students' grades were earned in almost equal portions of honors and regular sections. Eighty-three per cent of their grades were above average (*A*'s and *B*'s). *A*'s seem to have been slightly more common in regular sections; *B*'s in honors sections. Quarter-to-quarter percentages show a slight increase in total number of *A*'s and a slight decline in the total of *B*'s. Through the academic year the median

[6] Olsen, J. K. "The Honors Program: Purposes and Procedures," *op. cit.*

cumulative grade-point average was 3.24; the mean was 3.20. Although the quarter-to-quarter over-all average GPA decreased slightly, the number of students earning high GPA's increased in each successive quarter.

One hundred and twenty-four freshmen were engaged in the Program for at least one quarter during 1960–61. Seventeen students (14 per cent) were dismissed from the Program by the end of the Spring Quarter on the bases of faculty evaluations and low grade-point achievement. Another eighteen voluntarily withdrew from the University or participation in the Honors Program; eleven of these would have been dismissed had they not elected to withdraw. Eighty-nine, or 72 per cent, survived.

All of the problems that were encountered were due to the exceptional nature of an honors program superimposed upon the existing structure and procedures of a large, comprehensive state university. For one thing, the situation was complicated by those departments conscientiously concerned with quantitative computations of academic load that scheduled honors sections for the "unpopular" hours, such as 8:00 A.M. and 3:00 P.M., because those sections would be small in any event. This is unfair to the honors student in that it denies him the class-hour options available to other students. It also results in the obvious conflict of several honors sections scheduled at identical hours.

The honors student must depart from structured curricular patterns in order to take advantage of the honors sections when they are offered. Special advisers are, therefore, needed to enable the curricular flexibility definitive of honors study. Further it is imperative that the scheduling of honors sections for the entire academic year be formulated before the Fall Quarter so that students and advisers may plan accordingly.

An honors program is subjected to the charge of "segregation," when organizational plans are formulated for and by honors students. This charge was effectively answered by a Kent State University honors student who suggested that religious, dramatic, and athletic groups provide exclusive programs for their respective members without incurring a similar indictment.

The operation of the Program in 1961–62 involves both modified and additional features. Criteria for admission to honors study are now considerably more strict: had the 1961–62 criteria been in effect in 1960–61, there would have been approximately

40 per cent fewer honors students. Generally a percentile of 90 for both the ACTP and high-school rank is minimal. Even the highest ACTP composite percentile rank enables admission only with a high-school ranking in at least the 80th percentile. Irrespective of high-school ranking, a minimum ACTP composite percentile of 80 is requisite. Additionally a minimum percentile rank of 90 on the ACTP English test is specified.

Despite these altered criteria, the list of those invited for 1961–62 numbers 132 as compared with a total of 114 a year ago. This increase is due to the ever-expanding college-student population and the attractiveness of the Program as evidenced by the oral and written expressions of several persons taking part. The median ACTP percentile for these invitees is 96 and the median HSR percentile is 95.5.

A permanent University Honors Council has been instituted this fall. It is independent of the Committee on Academic Standards and composed of eight teaching faculty members representing the academic departments participating and the course-of-study objectives of the honors students. The Council is to be concerned with the policies and procedures of the Program and will entertain departmental proposals for junior-senior level honors study beginning in 1962–63. The Council members serve as the honors advisers.

Five academic departments that were not involved in the Program last year are offering honors sections in 1961–62. And five departments that did participate are adding sections of additional courses at the sophomore level.

Probably the most significant innovation for the second year is the inauguration of three interdisciplinary colloquiums open only to honors sophomores and administered directly by the Honors Program. These colloquiums, to be offered in succeeding quarters, have as their themes: "Marxism and International Communism," "Excellence and Education," and "Technology and the Material Culture." Lecture and discussion sessions and an independent-study project are to be required of all students.

THE 1961–62 Program will reflect many of the reactions to the first year's sessions expressed by students and faculty members who took part. At the end of the year, questionnaires were submitted to all 124 students and 24 instructors who had been involved in the Program.

Eighty-four, or 68 per cent, of the students and nineteen, or

79 per cent, of the instructors replied. The responses to critical questions manifested surprisingly high agreement.

Only one of the nineteen instructors responding was unsatisfied with his involvement in the Program. The rest described the objectives of an honors program as including the development of student initiative and the optimal climate for education; they answered that they had achieved these objectives, at least in part. Many suggested that more flexible methods and more primary and sophisticated materials be employed in honors instruction. Fifteen were unequivocally in favor of a program comprehending the freshman year, the most frequent reason being given that preparation for scholarliness cannot be delayed.

The attractive characteristics of honors instruction listed far outnumbered the unattractive. Seventeen cited the quality of the students and the challenge of direct and personal contact as rewarding features. In fact, the principal criticism of the Program was that it needed expansion.

The students' responses closely parallel those of the instructors. Only seven were unsatisfied with their involvement in the Program; six of the eighty-four would not recommend it to incoming Freshmen; and five would not have participated had they known what they now know. Sixty-seven responded that the Program achieved the primary objectives that they assumed it to have—to provide opportunity for more individualized and challenging study and a more thorough understanding of course materials. Seventy-six, or 90 per cent, approved the inauguration of an Honors Program at the freshman level.

The outstanding characteristic of Kent State University's honors sections during 1960–61 as assessed by the students was the less formal atmosphere, permitting more class discussion than in regular sections. This is in accord with their concept of the ideal honors program, which would demand even more independent and creative work and increase and broaden their knowledge and appreciation both in general and specialized study to a greater extent than achieved this year.

In summary, a somewhat more than modest and moderately successful beginning has been made. The proper steps to equalize the academic opportunity of the student of superior potential to exploit his intellectual resources have been taken. The tasks remaining to provide a four-year program involving the efforts of many of the faculty and staff are numerous, but compelling.

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The Effectiveness of the ACT for Selection and Placement at The Ohio State University[1]

By FRANK R. PETERS AND EUGENIA L. PLOG

Mr. Peters is supervisor of evaluation at the Counseling and Testing Center of The Ohio State University. Miss Plog is a research assistant at the Center.

In 1960 The Ohio State University required that all students entering the University take the American College Test (ACT). The purpose of this requirement was to make possible careful study of the effectiveness of using this test as a replacement for the OSU English and mathematics placement tests and the Ohio State Psychological Examination. In this paper some of the results of that study are reported.[2]

The American College Testing Program was initiated in 1960 as an outgrowth of the Iowa College Scholarship and Placement Testing Program.[3] A large number of colleges and universities, especially in the middle west, joined the program. The ACT comprises subtests in English, mathematics, natural science, and social science, each patterned after the parallel test in the Iowa Tests of Educational Development (ITED) and the USAFI General Educational Development Tests.

The scores on all ACT tests are converted to a common scale score developed with the ITED. The scale originally was designed for Iowa high-school students and was to have a mean of 15 with a standard deviation of 5 and a range of 0 to 36. The publishers estimate that 20 is the approximate median score of college-bound seniors taking the ACT examination. The standard deviation is usually 5 or 6. In this study the reported scale scores were used for each of the ACT tests, and the sum of these four scores was used as the total score. For all OSU tests, including the Ohio State Psychological Examination, raw scores were used.

In the OSU placement program, students are assigned to one of five possible levels of mathematics instruction. The tests in mathematics consist of one general screening test (OSU Math. A) which is given to all entering freshmen, and three different sec-

[1] This research was supported by the Office of Research and Institutes—The Ohio State University budget for research in the social sciences—and the University Counseling and Testing Center.

[2] Copies of the complete report are available upon request.

[3] *The American College Testing Program, Technical Report, 1960–61 Edition.* Chicago: Science Research Associates, Inc., 1960, pp. 1–24.

ond-level tests to which students are assigned on the basis of their score on Math. A. Those scoring low on the first test are assigned a second test (OSU Math. B) of arithmetic and high-school algebra. Depending on their scores on this second test, they are placed in either Math. 400 or Math. 401, both of which are non-credit courses. Those scoring in the middle ranges on Math. A are assigned to OSU Math. C, which covers high-school algebra and geometry. Depending on their scores on this test, they are placed in either Math. 401 or in the first college-level credit course in mathematics, Math. 416 or 421. Those scoring in the top range on the first test take a second test (OSU Math. D) covering the subject-matter of the first two college courses. Depending on their scores on this test, they are assigned to Math. 416 or 421, Math. 439, or Math. 418 or 440. If assigned to Math. 439, a special course for advanced-placement students, they are eligible for five hours proficiency credit. Those assigned to the third college-level courses (418 or 440) are eligible for ten hours proficiency credit.

In English, students are assigned to one of three levels of instruction. The present placement tests consist of an objective portion (OSU English) and an essay which the student must write on one of three assigned topics. The final judgment of placement is made by members of the English Department who read the essay. The objective-test scores are known by the readers. The scores, therefore, help to set a more or less consistent standard for comparison from testing group to testing group in order to increase the reliability and validity of the theme judgments. In addition, the availability of the scores enables the readers to focus more sharply on marginal cases. For example, the themes of those students scoring very low are read only once unless the first reader finds the theme to be substantially better than expected. At the ranges in score distribution where ordinarily there are substantial percentages of the group placed at different levels of instruction, all themes are read twice, and by a third reader if the first two disagree. Clearly, the objective-test score does influence placement, though the degree of influence is indeterminable.[4]

The final test required of all entering students at Ohio State is the Ohio State Psychological Examination (OSPE), which is

[4] For more extensive descriptions of the placement program, *see* Frank R. Peters, "Placement Testing in English and Mathematics at Ohio State University," EDUCATIONAL RESEARCH BULLETIN, XXXVII (May 14, 1958), pp. 113–19; and Frank R. Peters and Leslie H. Miller, "A Successful Advanced-Placement Program in Mathematics," EDUCATIONAL RESEARCH BULLETIN, XXXVIII (November 11, 1959), pp. 203–209.

known as one of the better academic aptitude tests and is often used for general screening and advisement of students. The extent to which the various OSU Colleges do in fact use the OSPE is unknown, although it is one of the tests used by the scholarship office in assessing applicants and it is often referred to when students are in academic difficulty.

Because of the different structures of the two major placement programs and the use of the OSPE, the following discussion will treat each of the programs separately. For each, two important procedures were carried out. First, the tests involved were contrasted in terms of correlational statistics, distributions of scores, and the general structure of the tests. Second, an attempt was made to estimate differences in potential error of selection or placement if one set of tests or another were used.

Because of the particular uses of a test predicting point-hour ratio (PHR) at Ohio State, the study was concerned not only with the predictive effectiveness of the instruments over the total range of students, but also with the predictive effectiveness at the extremes of the distribution. The sample comprised 2,705 students who entered the University as Freshmen in Autumn Quarter, 1960. This represented approximately 55 per cent of the entering Freshmen. All such Freshmen were included if they had received a grade in both a mathematics and an English course in their first quarter and if complete test scores were available for them.

Table I presents the means and standard deviations of the various tests based on this sample, as well as the correlations of the tests with Autumn Quarter PHR. The means and sigmas of the various tests are not unusual, though two facts are worthy of note—the low mean and standard deviation of the ACT English score (a matter we shall take up later) and the high sigmas on both mathematics tests. The latter suggests that there is substantially more variability among the students with respect to their mathematical competence than in other areas. The correlations between the OSPE and the ACT subtests are relatively high, and the .83 correlation between the OSPE and the ACT Total suggests that the two tests are very closely related.

The data show that the ACT Total score is the best predictor of PHR ($r = .56$) with OSPE scores ($r = .54$) and OSU English ($r = .53$) almost as high. The difference between the ACT and OSPE correlations with PHR is statistically significant ($P < .01$).[5]

[5] All citations of probability are based on two-tailed tests.

These correlations are at about the median of correlations with PHR usually reported for most of the widely accepted tests and high-school grade average or rank. It is likely that any one of the three tests in combination with high-school grades would produce a substantially higher correlation with PHR. Which of the

TABLE I

CORRELATIONS AMONG ACT TESTS, OSPE, OSU PLACEMENT TESTS, AND FIRST QUARTER PHR, AUTUMN QUARTER, 1960

Measure	Mean	Sigma	PRODUCT-MOMENT CORRELATIONS								
			1	2	3	4	5	6	7	8	9
(1)	(2)	(3)	(4)								
1 OSPE	77.1	27.0		.70	.65	.74	.74	.83			.54
2 ACT English	18.6	4.9							.72		.47
3 ACT Math.	20.9	7.1								.86	.47
4 ACT Social Studies .	20.1	5.7									.50
5 ACT Natural Science	21.1	6.5									.47
6 ACT Total*	80.7	20.6									.56
7 OSU English	57.7	12.6									.53
8 OSU Math. A	17.6	8.3									.43
9 Autumn Quarter PHR	2.0	.8									

* Sum of four subtest scores.

three would be most effective in such combination depends on their correlations with high-school grades, which were not available.

The similarity between the OSPE and the ACT Total for prediction of PHR is substantiated by the distribution of grades of the extreme groups on each test. For purposes of comparison, the distribution of grades for the lowest and highest three hundred scorers on each test was determined. These data are presented in Table II. The distribution of grades of all four selected groups is significantly different from that for all students ($P < .001$) in expected directions. The high OSPE group grade distribution does not differ significantly from the high ACT Total group nor does the low OSPE group differ significantly from the low ACT Total group ($P > .50$). Clearly either test could be used with equal effectiveness for differentiating a group of potentially low students or for identifying a highly select group.

UPON turning to the possible usefulness of the ACT mathematics test to replace or supplement the present OSU mathematics tests, the problem of analysis becomes somewhat different. What is now at issue is not over-all predictive efficiency but the effectiveness of the tests at particular course levels in particular

subjects. The most precise comparisons, therefore, entailed comparing the correlations of the various tests with grades in critical courses. Since the students had in fact been placed on the basis of the OSU tests, however, the range of OSU test scores represented in each course was restricted. Such restriction almost invariably lowers the correlations between scores and grades. This fact biased the comparisons of correlations in favor of the ACT test.

TABLE II

DISTRIBUTION OF HIGH AND LOW SCORERS ON SELECTED TESTS BY AUTUMN QUARTER PHR

PHR	HIGH SCORERS				LOW SCORERS				ALL STUDENTS	
	ACT Total $N=312$		OSPE $N=309$		ACT Total $N=287$		OSPE $N=308$		All Students $N=2,690$	
	N	Per Cent	N	Per Cent	N	Per Cent	N	Per Cent	N	Per Cent
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
3.6–4.0..	37	12	35	11					49	2
3.0–3.5..	109	35	102	33	3	1	2	1	268	10
2.0–2.9..	134	43	131	42	40	14	53	17	1,092	41
1.0–1.9..	30	10	39	13	166	58	169	55	1,045	39
0.0–0.9..	2	1	2	1	78	27	84	27	236	9

Initial comparison of the tests suggests that the ACT test was similar to OSU Math. A. The extremely high correlation found between these two tests ($r = .86$) supports this view. OSU Math. C also appears to be similar to ACT Math. The content of OSU Math. B (used for those scoring in the low range on A), however, is much more restricted than the ACT test, and the content of OSU Math. D (used for those scoring in the highest range on A) is quite different. The items on B deal primarily with arithmetic and elementary algebra, whereas Math. D items are drawn from college algebra and trigonometry. The ACT Math. test, like Math. A, includes material ordinarily covered in the first three years of high-school mathematics. The correlations with mathematics course grades for each of the second-level OSU tests and ACT Math. are presented in Table III. The pattern of correlations between grades and test scores seems clear. At both extremes the second-level OSU tests seem to be more closely related to course grades than do ACT scores. In 440,[6] the D test

[6] In the following, Math. 440 will refer to both Math. 418 and 440, the first being the third-quarter course in the Arts and Science sequence and 440 being the third-quarter course in the Engineering sequence. These two groups were combined in the analysis. In the same manner, Math. 416 will refer to both 416 and 421, the first-quarter mathematics courses in the Colleges of Arts and Sciences and Engineering, respectively.

correlation with grades is .45; ACT with grades, .28. At the 400 and 401 level, the differences between B and ACT correlations are equally striking.

TABLE III

CORRELATIONS BETWEEN MATHEMATICS TESTS AND GRADES IN MATHEMATICS COURSES*

Mathematics Course	ACT Math.	OSU TEST		
		D	C	B
(1)	(2)	(3)	(4)	(5)
440	.27	.45		
439	.39	.23		
416	.31	.19	.16	
401	.24		.19	.37
400	.27			.45

* All correlations are significant ($P < .05$).

In 439, the difference favors ACT over D (.39 versus .23). In 439, however, placements constituted only six score points on the D test. In contrast, ACT scores of students in 439 ranged from 17 to 36. When only the students who scored within a similarly restricted range on ACT (scores 28 to 32) were considered, the correlation between ACT scores and 439 grades was only .16.[7]

The restriction on range on OSU tests at 400, 401, 416, and 440 is almost as great as at 439. In these courses the ACT range tended to be as large or larger than in 439. This fact makes the correlations with B and D in each of these courses even more impressive. As shown in Table III, however, the correlations between grades in 401 and 416 and OSU Math. C scores are somewhat lower than the correlations between ACT Math. and grades in these courses. If the range of the ACT scores in these courses were restricted, the differences would disappear. This, of course, does not alter the fact that these correlations are too low to be comfortable. Clearly, Math. C as presently constituted needs to be re-examined. It may be that in this range a second test does not add precision to placement and ought to be dropped.

The last important contrast between ACT Math. and OSU tests focused on the question of whether ACT would be as effective as the general screening instrument as Math. A had been. As indicated earlier, the correlation between these tests was extremely high; yet when the correlations between them and grades in

[7] These would have been the scores used to place students in 439 if a similar proportion of students had been placed in this course on the basis of ACT alone. At 416, the correlation between ACT scores and grades, when only scores within ACT potential 416 placement range were used, was .20.

each mathematics course were examined, two very significant differences were found. The correlations are presented in Table IV. The two tests at the high end, in Math. 439 and 440, are the same with respect to correlations with grades. In 416, the OSU test is

TABLE IV

CORRELATIONS BETWEEN MATH. A AND GRADES IN MATHEMATICS COURSES, AND ACT MATH. AND GRADES IN MATHEMATICS COURSES

Mathematics Course	*N*	ACT Math.	Math. A	Difference	Significance
(1)	(2)	(3)	(4)	(5)	(6)
440	149	.27	.28	+.01	NS
439	381	.39	.38	−.01	NS
416	850	.31	.35	+.04	$P < .02$
401	324	.24	.24	.00	NS
400	987	.27	.40	+.13	$P < .001$

significantly better ($P < .02$). At the 400 level, the difference is even greater; the OSU test and grades correlation is .40 in contrast to the correlation of .27 between ACT and grades ($P < .001$). Clearly the OSU test is more highly related to course grades at the low and middle ranges of score distributions.

THE problem of estimating the possible effectiveness of using the ACT English test to supplement or replace the present placement tests in English was essentially the same as the problem in mathematics. It was somewhat more complex because the OSU English tests include an essay and there was no way to contrast statistically the effectiveness of the ACT test and essay, since the latter is used directly for placement. The two tests, however, did not agree well on placement in English 400 (remedial) or in English 417 (proficiency); that is, of those students who would have been placed in English 400 if the ACT scores alone were used (and if the proportion of students placed there were constant), only 55 per cent were actually placed in English 400 on the basis of the OSU tests. And of those students who would have been placed in 417 if ACT alone were used, only 36 per cent were actually placed there. These facts, coupled with the knowledge that the English faculty thought present placement procedures were highly effective, led to the conclusion that the ACT English test would increase error substantially if used to replace both the OSU objective English test and the essay. The faculty judgment is supported by the fact that since the essay has been

used, the proportions of failures in all three courses have been greatly reduced.

A more direct comparison of the ACT English test and the OSU objective test was possible. On casual inspection, the two tests appear to be very similar. They are the same in general format and in the type of item used. Statistical comparison, however, suggests that there is more difference between the tests than one would expect. First, the correlation between the two ($r = .72$) is high but not as high as between the OSPE and the ACT Total ($r = .83$) or between the ACT Math. and OSU Math. A ($r = .86$). Examination of the frequency distributions of the two tests indicated a substantial difference. On the ACT English test, the great majority of students were bunched in the low middle sector of the score range; this was not true of the OSU test scores. The skewed distribution of the ACT scores probably explains much of the difference in the effectiveness of the tests for grade prediction.[8]

To discover which was most effective for English placement, the correlations were determined between scores on each of the tests and grades in each of the three English courses. The correlations between test scores and English grades with all courses combined were also determined. All of these are presented in Table V. With the exception of grades in 417, the correlations between grades and OSU English test scores were consistently higher than correlations between grades and the ACT English test. Both the differences at 416 and with courses combined were highly significant; the other two were not.

TABLE V

CORRELATIONS BETWEEN ACT ENGLISH, OSU ENGLISH, AND GRADES IN ENGLISH COURSES

English Courses	*N*	ACT English r	OSU English r	Difference	Significance
(1)	(2)	(3)	(4)	(5)	(6)
400	509	.27	.31	+.04	$P < .19$
416	2,036	.36	.43	+.07	$P < .001$
417	144	.42	.34	−.09	$P < .16$
All Courses	2,690	.49	.56	+.07	$P < .001$

Although other findings had suggested that ACT test scores tended to predict better at the extremely high end of the distribution, the reversal of an otherwise consistent trend led to an in-

[8] Examination of data from other institutions suggests that the ACT English test score distributions found at Ohio State are not unusual.

spection of the 417 distributions. It seemed from the scatterplots (Figures I and II) that the two tests were predicting at about the same level; that is, the regression lines and deviations were very much the same. The difference in correlations appeared to be the effect of some eleven cases which deviated very sharply downward from the rest of the group on the ACT score. When these eleven

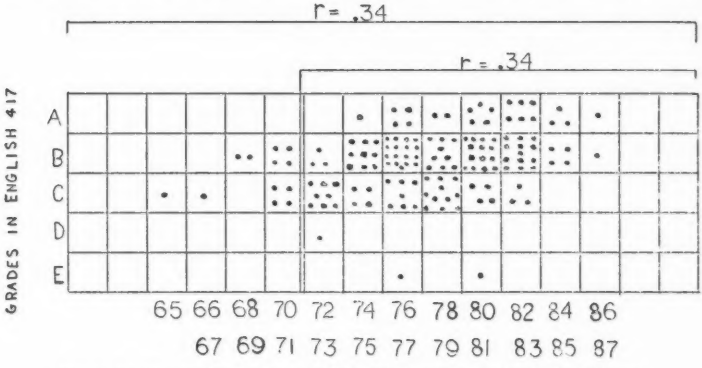

Fig. 1. Frequency distribution of OSU English versus grades in English 417.

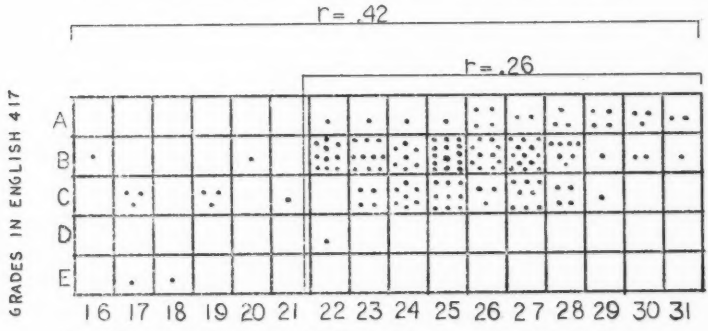

Fig. 2. Frequency distribution of ACT English versus grades in English 417.

cases were taken away from the ACT group, the correlation between scores and grades dropped from .42 to .26. In contrast, taking away the bottom twelve cases on OSU English did not affect the correlation between scores on this test and 417 grades ($r = .34$).

A word needs to be said about the correlations with all courses combined; using this procedure for both tests substantially increased the correlations with grades. If grades in each of the

three courses were normally distributed, one would expect just the contrary—that combination would greatly lower the correlation. In fact, however, only four of the students in English 400 received a grade above a *C*, and only six students in 417 received a lower grade. In short, grade distributions in English correlate highly with placement, and this fact tends to increase rather than decrease correlations with grades when all courses are combined.[9]

THE primary problem of this study was to determine the possible effectiveness of using the ACT tests to supplement or replace the Ohio State Psychological Examination and the OSU placement tests in the University placement program. With respect to predicting point-hour ratio, the ACT Total score was superior to the OSPE (r's $= .56$ and $.54$, respectively; $P < .01$). The next best predictor was the OSU English test ($r = .53$). Comparison of the PHR distributions of approximately the upper and lower 10 per cent on ACT and OSPE revealed that either test could have been used with equal effectiveness to select a small, highly promising group of students or a small group of potentially low students.

In working out the problem of determining the potential effectiveness of the ACT tests for placement in English and mathematics, a rather consistent picture of differences between the OSU and ACT test scores emerged. In both English and mathematics, the OSU tests were more closely related to relevant course grades than were the ACT tests. This was true in mathematics both with the screening test (Math. A) and the second-level tests. The same general pattern held true in English. Almost half of the students who would have been placed in remedial English (English 400) if ACT alone were used were in fact placed in 416 on the basis of their essays. And the OSU objective English tests consistently correlated more highly with course grades than did the ACT test.

[9] The placement program in English has remained unchanged since 1958, when the present OSU English test and theme replaced the old objective test. Following the change there was a significant shift in the proportions of students placed at different levels, fewer being placed ahead in 417 and 3 or 4 per cent more being placed in 400 than in the immediately preceding years. There was also a dramatic shift in the grade distributions of students placed, the percentage of failures dropping from 36 per cent to 26 per cent in English 400, from 7.6 per cent to 4.5 per cent in English 416, and from 14 per cent to 8 per cent in English 417. Both the proportions of placements and grade distributions have been relatively constant since. From the improvement in grades, it seems clear that the new program reflects more realistically the expectations of the staff and the potentialities of the students.

[*Continued on page 252*]

Recent Studies of Ohio's Cadet Program

By H. I. VON HADEN

Mr. Von Haden is assistant dean of the School of Education at Miami University.

THE cadet-teacher program in Ohio was instituted as an emergency measure in 1954. For some time it has been deplored as substandard, but the shortage of elementary-school teachers has stood in the way of its termination. Basically the program provides for the certification of applicants for teaching in the elementary schools with two years of college education. Approximately half of their preparation is in professional course work and student teaching, and half is in academic subject-matter. The cadet certificate is issued for four years and is renewable upon the completion of twenty-four semester hours of additional college work.

The controversy over the program culminated recently in the refusal by the State Board of Education to terminate it. The minutes of the Ohio State Board of Education for October 9, 1961, indicate that the Board voted to continue cadet certification and to study the problem further. Inability to identify other ways of meeting the shortage of elementary-school teachers appeared to be the chief reason for the Board's decision. This action, however, does not eliminate the need for continuous upgrading of teacher education and certification in Ohio and throughout the nation. In fact, it suggests that, if the time has not arrived for discontinuing the cadet program, revision of it may be even more imperative now than before the decision was reached. Recent investigation of the program may shed light upon some aspects of the problem that need to be considered if the quality of teaching is to be improved without closing the door to promising prospective teachers.

Raymond G. Drage, in his Ohio State University doctoral dissertation of several years ago, recommended that the Ohio legislature study carefully cadet training in New York and California and re-establish the Ohio Scholarship Program, incorporating the good features of both states' plans. As part of evaluation, a follow-up investigation of cadets dropping out of teaching was proposed. The author stressed the need for selecting college instructors with special talent for preparing cadets. He suggested

further that college professors of education and superintendents of schools work together closely to define the aims of the cadet program.

One of the first reports to approach evaluation of the program through teaching success is an unpublished paper, prepared by Christine Van Gorden, of Miami University. Presented to the 1959 meeting of the Ohio College Association, this paper deals with principals' evaluations of the effectiveness of one hundred beginning cadets and one hundred teachers with four years of training.

The report indicates that the differences between the evaluations of the teaching effectiveness of cadets and four-year teachers included in this study are negligible. It emphasizes that one must proceed with caution when generalizing about the effectiveness of the cadet teacher; that such factors as motivation, determination, and dedication to one's work may be more significant for elementary-school teachers than the length or kind of training; and that either the evaluators were very generous in their ratings or the two hundred beginning teachers under study, both cadet and four-year personnel, were performing at a highly satisfactory level.

The author recognizes two major difficulties involved in any comparative evaluation of teachers. In the first place, judgments are made by different supervisors with varying standards. Also these judgments are often based upon general impressions rather than upon objective data and close contact with the teachers' work in the classrooms.

During 1959–60 the Ohio College Association continued its study of the cadet program. At the 1960 meeting of the Association, Ralph Geer, of Bowling Green State University, summarized his findings. He revealed that the typical student completing the cadet program at his University in 1956 was a married woman of twenty-three, who had entered Bowling Green directly from high school with a five-hundred-dollar state scholarship.

His report indicates that cadet preparation appears to be adequate although the degree teachers possess more confidence; that cadets carry a stigma and find the completion of their degree difficult and exhausting while they are teaching; and that the cadet program was necessary for bringing these teachers into the profession. He concludes that as of 1960, "The teacher shortage justifies continuing the cadet plan."

A similar study was reported by C. M. Schindler at the 1960

meeting of the Ohio College Association. It involved two groups of cadets who had completed the program at Kent State University in 1956, either on the main campus or in the Canton Center. Lack of funds and time were the chief considerations in the candidates' decisions to enter the cadet program. These students were somewhat above the over-all average of the 1957 graduates in the College of Education in respect to scores on psychological tests and achievement as indicated by grade-point average.

Of the 101 teachers involved in the study, 70 taught continuously for the four years after leaving college, and 23 others taught three to three and one-half years. Only one failed to take a classroom assignment. Sixty-two cadets said that they were enthusiastic about their work, and 93 planned to continue teaching. After four years, 18 had completed the baccalaureate degree; and 56 others had taken 27 or more quarter hours of additional work. On the principals' evaluations, 65 of the 101 are reported as doing an above-average or superior job in the classroom, and only one is judged to be below average or poor.

A doctoral dissertation completed by Richard L. Nelson at the University of Cincinnati during the past year investigates the reasons for starting the cadet program in Ohio and for continuing it. The author studied attitudes of administrators and college personnel toward cadets. His results indicate that beginning cadets are more comparable to four-year candidates than are those with previous backgrounds of teaching. Most administrators who were questioned favor continuation of the program with revisions and improvements.

DURING the past year, H. I. Von Haden and R. Dare Brown, of Miami University, studied the over-all status of the cadet program and analyzed the results of 3,312 opinionnaires submitted by a wide variety of people associated with education in the state. The comments made by the respondents range from complete condemnation to enthusiastic support of the program.

Generally elementary-school principals and teachers, superintendents, executive heads, and school-board members respond favorably. On the other hand, college professors of education, college students preparing to teach, and delegates to the Representative Assembly of the Ohio Education Association respond unfavorably. The questions concerning adequacy of cadets to begin teaching and those related to the continuation or termina-

tion of the program elicit the most divergent responses from the respective groups. In the main, respondents agree that cadets strive for self-improvement and that except for the cadet program many of these teachers would not have entered the profession. However, they think that the program does lower professional standards.

The report makes six specific suggestions for possible revision of the cadet program:

1. The General Assembly might establish a loan fund for prospective teachers who are unable to finance four years of college.
2. The cadet certificate might be issued for two or three years instead of the present four. At the end of this time, the cadet would be required to return to college for full-time study and to complete a degree before another certificate would be issued.
3. The cadet might spend his two college years in course work and a third year as a paid intern. During the third year the salary would perhaps be as little as half that of a fully certificated teacher. The cadet would be under the supervision of a master teacher and a college supervisor and would receive college credit for student teaching.
4. Two cadets might staff one classroom, each spending a half day teaching and the other half day pursuing college work toward a degree.
5. A greater differential than presently exists between the salaries of cadets and fully certificated teachers might stimulate cadets to accelerate the completion of their work.
6. Cadets might be assigned smaller classes and receive considerably less salary than fully trained teachers.

THE fact that many of the opinions, and even the evaluations of teaching effectiveness, as reported in these studies run contrary to common sense emphasizes the complexity of the problem. The principals' failure to differentiate between the effectiveness of cadets and of degree teachers raises many questions. If two years of training is as good as four years, is it not possible that no training at all would be equally good or even better? Do principals have valid, reliable, and objective ways of evaluating teaching effectiveness? Has the shortage of teachers over a period of years made supervisors indiscriminate?

The differences of opinion existing between elementary-school principals and delegates to the Representative Assembly

of the Ohio Education Association or between board members and college professors of education reflect the differences in viewpoint between those who must keep the classrooms staffed on a day-to-day basis and those who are concerned primarily with long-range planning for improvement.

If the cadet program contains only a fraction of the strengths which its advocates insist it does, these advantages should not be overlooked. On the other hand, there is almost universal agreement that teacher qualifications must be constantly improved. There is also general agreement that continuing the cadet program on its present basis will not serve the best long-range interests of pupils or the teaching profession.

It seems reasonable that Ohio's cadet program could be modified so as to eliminate its weaknesses and to capitalize upon its advantages. A revision might result in a new way of integrating theory with practical classroom experience in the preparation of teachers. It might be the key to a study-teach-study program of teacher preparation which could effectively supplement other programs.

Regardless of what form it will take, a radically revised cadet program seems to be called for. Its main objective should be the training of better teachers for Ohio's schools.

STUDIES SUMMARIZED

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Geer, Ralph. "Bowling Green State University Profile of Cadets Attending the University in 1955–56." Unpublished paper presented to the Ohio College Association, 1960.

Nelson, Richard L. "The Cadet Certificate Program in Ohio." Unpublished doctoral dissertation, University of Cincinnati, 1961.

Schindler, C. M. "Results of a Survey of 101 Elementary and Early Childhood Cadets Who Completed the Program in 1956." Unpublished paper presented to the Ohio College Association, 1960.

Van Gorden, Christine. "Principals' Evaluations of Cadets and Four-year Teachers." Unpublished paper presented to the Ohio College Association, 1959.

Von Haden, H. I., and Brown, R. Dare. "The Cadet Teacher Program.' *Ohio School Boards Journal,* V (January, 1961), pp. 7, 13.

Von Haden, H. I., and Brown, R. Dare. "What People Think of the Cadet Program," *Ohio School Boards Journal,* V (May, 1961), pp. 14–15.

Von Haden, H. I., and Brown, R. Dare. "What People Say About the Cadet Program," *Ohio School Boards Journal,* V (June, 1961), pp. 9–10, 22.

EDITORIAL COMMENT

The Bureau Has a New Look

DURING the past twelve months, the senior staff of the Bureau of Educational Research and Service has been engaged in a probing self-study prompted by a number of problems: extreme diversification of functions among the staff, lack of flexibility in meeting new issues, deficiencies in communication between Bureau divisions and between the Bureau and other Departments of the College of Education, weak central-office organization, and others. The deliberations of three committees, concerned essentially with organization, operations, and working relationships, culminated in a final series of recommendations which have been accepted by the staff.

Two major aspects of this report are a statement of Bureau objectives and a plan for over-all reorganization. The new objectives were reviewed in the November issue of the BULLETIN. The plan for reorganization proposes that the Bureau consist of certain relatively permanent *Divisions* and certain relatively temporary *Centers*. The Divisions are devised to provide a broad-front coverage of the entire field of education. Each will be responsible for a specified segment of that front and for the maintenance of an integrated research and service activity floor in relation to that segment. When research or service activities cut across Divisional lines, or when it seems advisable to involve staff from other departments of the College or University in relation to a particular research or service activity, an *ad hoc* Center may be established. The Center is thus a temporary structure and ceases to exist when the given problem is resolved or the given project is terminated. Centers should provide increased internal and external communication, flexibility, and facilities for meeting the needs of a changing educational research and service situation.

It should be noted at once that each Division is concerned with *both* research and service. Research is of no worth unless it is utilized, and quality service is based upon the application of valid knowledge. Research and service are thus opposite sides of the same coin; their divorce is necessarily artificial and is undertaken only at the risk that the research be vapid and the service repetitive. Their marriage, on the other hand, leads to a fruitfulness that can hardly be overestimated.

EDUCATION is an applied science that involves three components: *certain persons*—teachers, pupils, administrators, and so forth—who are *doing something*—teaching, learning, administering—*in certain surroundings*. In devising a structure adequate to deal with these factors, three Divisions emerge: a Division of EDUCATIONAL PERSONNEL, a Division of EDUCATIONAL PROGRAM, and a Division of EDUCATIONAL ADMINISTRATION AND FACILITIES. The last term is perhaps not entirely adequate to describe what is meant by "surroundings" but does have the advantage of being readily understood. All applied sciences, of course, draw upon certain more basic or elemental sciences for root concepts; in the case of education, such social disciplines as anthropology, psychology, and sociology seem most appropriate. Education also has a humanistic base in the area of philosophy of education, and to a lesser extent in history of education and related literature and arts. Combining these social and humanistic bases into a single area permits the emergence of a fourth Division, the Division of EDUCATIONAL FOUNDATIONS. Finally, it is clear that research and service are today complicated enterprises based upon elaborate methodological techniques; thus, a Division of PLANNING AND METHODOLOGY emerges.

A brief description of the sphere of activity of each Division might include the following:

1. *The Educational Foundations Division* is concerned with basic inquiries into both the means and ends of education. The former will include psychological and sociological inquiries which produce warrantable generalizations about the teaching-learning process—its personnel, programs, and settings. Inquiries into ends will include philosophical studies which produce objectives for the teaching-learning process.

2. *The Planning and Methodology Division* is concerned with the design of research and service projects, both from a theoretical and a methodological point of view. It will consist of a core of personnel who can advise on design, performance, analysis, interpretation, and reporting functions.

3. *The Educational Personnel Division* is concerned with all personnel aspects of the school's operation, including pupils, teachers, administrators, and noncertificated personnel. Aspects of guidance and counseling, records and reports, selection and evaluation, placement, and related areas will be located here.

4. *The Educational Program Division* is primarily concerned with inquiries into those aspects of education which are directed at bringing about given practical objectives and include curriculum development, materials of instruction, methods of instruction, and ways of learning. New educational media and automated instruction will also be a major interest of this Division.

5. *The Educational Administration and Facilities Division* is concerned with physical facilities and with those administrative task-areas not specifically assigned to other Divisions. The areas of concern include school plant, school-community relations, finance and business management, and organization and structure.

It is, of course, difficult to be specific about the kinds of Centers that will emerge, since these are temporary units responsive to particular issues or problems. In view of the present posture of the Bureau and the College of Education, it seems likely that among the earliest Centers will be: a Center for the Experimental High School, in connection with an ongoing Bureau and College project to devise a new secondary-school program and to develop a plant suitable to house it; a Center for the Study of New Media, related particularly to television and teaching-machine research; and a Center for the Associated Schools Project, an ongoing service-research project designed to test the idea that school-plant planning can better be accomplished through a consortium of associated schools than through the efforts of a single school.

It is anticipated that the new organization will put the Bureau into a better posture for meeting its research and service objectives. Whether or not it will in fact be an improvement over the old remains to be seen. In part the relative success or failure of the organization will depend upon its viability in dealing with problems arising in the everyday operation of the schools. In embracing this new organization, the Bureau thus reaffirms its past dedication to service. The kinds of service which have been rendered will be continued and expanded; the addition of research in depth will augment and interact with the service activity in ways which will be both theoretically and practically profitable.

EGON G. GUBA

READINGS

Books to Read

COLEMAN, JAMES S. *The Adolescent Society: the Social Life of the Teenager and its Impact on Education.* Glencoe, Illinois: Free Press, 1961. xvi + 368 pp.

This book represents one of the most impressive studies of the adolescent that this reviewer has come across to date. It focuses on socially relevant issues and combines in a refreshing way lucid analysis with rigorous research design.

Coleman structures his study within the framework of a rapidly changing industrial society. Emphasis is placed upon the emergence of an "adolescent subculture" and its impact upon teen-agers' images of themselves, their values, and their academic achievements. The unit of analysis proceeds for the most part at the level of the school and of subgroups within the school.

The social systems of ten high schools are examined in terms of the status accorded to athletic, academic, and "popular" prowess. The schools have been given fictitious names which indicate "something of the flavor of the community" (page ix)—for example, Farmdale, Marketville, Green Junction. The range of the sample is roughly "from prosperous farming or farming and industrial community (the five smallest schools) to working-class parochial boy's school in the center of a large city (St. John's), to new working class suburbs (Newlawn) to small cities (Millburg—heavy industry; Midcity—light industry) to well-to-do suburb (Executive Heights)" (page ix). Although all the schools are located in northern Illinois, Coleman stresses the fact that they are not intended to be representative of this section but were selected because of their diversity.

The author's basic thesis is that today's adolescent exists in a world set apart from the rest of society. He is cut off from most segments of the adult world because of widespread industrial changes and is forced to seek recognition from his own age group. "With his fellows, he comes to constitute a small society, one that has most of its important interactions *within* itself . . ." (page 3). The adolescent subculture has its own language and special symbols and, more importantly, a value system that often differs from that found in the adult's world. A major part of the adolescent's society centers about high-school activities; the ways in which these activities are defined by high-school students comprise the major findings of the book.

The fact that adolescents are looking to each other rather than to the adult community for their social rewards has important implications for educators and educational theory. For example, if the adolescent subculture places great value upon "being popular," then this goal will be

sought by most students in high schools that have this "value climate"—the idea being that those who have the highest status will be most popular. If, however, the social system defines athletic ability or perhaps academic achievement as more important, then these qualities will be prized and those who possess them will be envied. Coleman's point is that we must understand the adolescent society, accept it as established, and then use these insights to implement the objectives of secondary-school education. He sees little real change in the attitude of most teen-agers toward their studies until the adolescent world defines scholarly work as an appropriate way of achieving status.

A unique and valuable feature of the book is contained in the Appendix. Coleman has presented in detail his original research proposal and then proceeds to point out where his research design was later modified as the data began to present new insights and implications. In short, this study is well conceived and documents a number of provocative, and sometimes disconcerting, relationships existing between adolescent value systems and secondary education in modern society.

ALFRED C. CLARKE

DIACK, HUNTER. *Reading and the Psychology of Perception.* New York: Philosophical Library, Inc., 1960. 155 + xxiii pp.

This English author's purpose is to discount the value of the *word method* for teaching reading in the elementary schools; he defines this as teaching a child to recognize words by their length, the size of the letters, and configurations rather than by looking at their individual parts. He makes a critical survey of Gestalt theory, gives an account of the observations he has made on the development of language and perception in children, and attempts to make some suggestions for the future.

The first part of the book is devoted to a presentation of the history of Gestalt psychology and its effect on the teaching of reading. Diack also traces the development of the word method and points out its serious limitations as a means for teaching children reading. This part is effectively presented. Chapters are well organized; the criticisms logically substantiated.

In the later chapters of the book, the author presents a point of view based upon the assumption that letters have meaning. He attempts to produce evidence ". . . to show that printed words cannot be accurately perceived without the perception of the letters in them and that children trained to perceive whole words characteristically see only parts of the words and then say the whole word . . ." (page 73). To show that parts of a word are important, Diack conducted several experiments on concept-formation with relation to perception. Cards and drawings were used to show that children did not begin to recognize the object pictured until certain details were noted by them or pointed out to them. From the cards and drawings, Diack proceeded to words. Using *bus* and *cat* as examples, he shows that it is only after the letters are spelled out to form the words that the child is able to recognize them accurately.

Conclusions based upon the author's experimentation must be evaluated in the light of several significant limitations. First, the sample used in the experiments—two children in many instances—seems seriously inadequate considering the nature of the conclusions stated. Second, one cannot assume that children have learned letter meanings on the basis of their ability to recognize prescribed words. A cause-and-effect relationship between letter sense and word recognition has not been clearly proved by the evidence cited. Also, the author's use of certain terminology tends to confuse the reader. The phrase "letters have meaning" is stressed frequently without specification of the frame of reference for "meaning." It is only when the reader nears the final chapters of the book that he discovers the statement, ". . . the 'real reader' knows what letters are, what they look like individually, what they mean in terms of sound and what the order in which they appear means" (page 126); this somewhat clarifies what Diack is advocating.

Although the arguments presented appear sound within the framework of the book's context, they become somewhat absurd in the light of what is actually happening in reading programs. Modern elementary-school reading programs utilize desired aspects of both word recognition and phonetic elements; Diack disregards this fact. In spite of the previously mentioned limitations, the book would be helpful to students who are critically reviewing the various theories of teaching reading.

WILLAVENE WOLF

The Effectiveness of the ACT

[*Continued from page 241*]

We are convinced, therefore, that substituting the ACT tests either for the OSU Math. second-level tests, or for the OSU Math. A and English objective tests would increase error in placement. There is no way we know of estimating how much the error would be increased; it might be relatively slight. Placement is at best, however, a tenuous business and the most one can do is to try to keep error at a minimum.

It has often been demonstrated, as it was in the present study, that the more closely a test is designed to fit a particular purpose and to meet the particular conditions under which it is to be used, the less error is likely to accrue. We believe, for example, the reason the OSU English test is superior here to the ACT test is simply that it was constructed by the English faculty who were intimately acquainted with the staff, students, and courses at Ohio State.

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(R) Book Review

Alcorn, Marvin D., and Linley, James M., editors, *Issues in Curriculum Development: a Book of Readings* (R), (Earl W. Harmer), 134–35

Alexander, William M., and Saylor, J. Galen, *Modern Secondary Education: Basic Principles and Practices* (R), (Frederick R. Cyphert), 130–31

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